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Dairy Farms
Five Year Summary

1986 - 1990

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1986-1990

NOVA SCOTIA DAIRY FARM

BUSINESS SUMMARY REPORT

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TABLE OF CONTENTS

	PAGE
FOREWORD	i
SECTION A - SUMMARY	1
SECTION B - PER FARM ANALYSIS	4
SECTION C - PER COW ANALYSIS	7
SECTION D - PER HECTOLITRE ANALYSIS	10

FOREWORD

This report provides a summary of the business performance of Nova Scotia dairy farms over a five year period, 1986-1990 inclusive. Data used in the preparation of this summary was obtained from the Nova Scotia Dairy Farm Business Summaries prepared in each of the five years included in this report.

As noted in the Dairy Farm Business Summaries, the farms used were not selected on a random sample basis, but rather volunteered their information. Hence, care should be exercised in the interpretation and use of the results shown in this summary.

The main purpose of this summary is to provide basic information on the dairy industry, at the farm level, in Nova Scotia over a five year period. Trends in incomes, costs, net returns, efficiency and management factors are outlined.

The co-operation of the dairy producers whose business information has been used to prepare this summary is gratefully acknowledged. Thanks are also extended to Tracey Mitchell, who did the secretarial work for this report.

The authors accept full responsibility for any errors which may appear in the final report.

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SECTION A

SUMMARY

SUMMARY

This report provides information on trends that have occurred at the farm level in the Dairy Industry over the five year period, 1986-1990 inclusive. As noted earlier, the farms used to provide the basic data were not selected on a random sample basis. However, even with this noted limitation, the information contained in this summary can be used with care to provide useful trend data regarding the dairy industry in Nova Scotia.

The material is presented in the following manner - a brief summary of ratios, cost and return data, and management factors on a per farm, per cow and per hectolitre basis. The format used for presentation of information is similar to that used in the annual Dairy Farm Business Summaries.

In reviewing information contained in Table A-1, a number of observations can be made. Gross Farm Income has increased in each of the five years with an overall increase of some 17 percent over the five year period. At the same time, costs have increased 18 percent over this period. Net Farm Income has increased by 14 percent over the five year period, averaging an increase of approximately 3 percent a year. In 1990, Net Farm Income actually increased by 16 percent.

Production per cow has shown an increase over the five years, with the change over the period being 10.6 percent. Milk sold per man equivalent has increased by 5.9 percent over the period.

In terms of prices received from milk, this figure has also changed over the period, from an average price of $51.59 per hectolitre in 1986 to $56.05 in 1990. This represents an increase in percentage terms, of 8.6 percent. While returns have been increasing, costs have been on the rise as well. The cost of producing a hectolitre of milk averaged $51.10 in 1986, while in 1990 this figure was $56.71 - for a percentage change of 11 percent. The net return to the farmer was negative in 1990 - that is, the gross return was less than the cost. In 1990 the net return was $-0.66 per hectolitre.

The largest individual component of cost in producing milk is purchased dairy ration. On a per cow basis, this expense has increased from $764. in 1986 to $813. in 1990, for a percentage increase of 6.4 percent. On a per hectolitre of milk sold basis, the cost of feed decreased by $0.50 from $13.16 in 1986 to $12.66 in 1990.

Investment per cow has increased gradually over the five year period, with the percentage change between 1986 and 1990 being 34 percent.

Return to total invested capital has varied over the five year period 1986-1990, with a high of 11.5 percent in 1987 and a low of 8.1 percent in 1989. The average return over the five year period was 9.7 percent.

Capital turnover has remained relatively steady over the five year period, averaging 1.7 years.

TABLE A-1: SUMMARY

Item	1986	1987	1988	1989	1990
Gross Farm Income	225127	239440	240313	244778	263494
Total Farm Expenses	189725	196115	201614	209886	223156
Net Farm Income	35403	43325	38699	34892	40339
Labour & Management Income	18306	25505	19156	12585	17148
# of Cows/Farm	64	63	61	62	63
Production/Cow (L)	5807	6127	6200	6207	6420
Cows/Man Equivalent	25	24	23	23	24
Milk Sold/Man Equiv. (HL)	1442	1442	1436	1434	1527
Receipts From Milk/HL	51.59	53.54	53.99	55.14	56.05
Cost of Producing Milk/HL	51.10	51.39	53.53	56.72	56.71
Net Return/HL	0.50	2.15	0.46	-1.58	-0.66
Variable Cost as % of Total Cost	64	62	61	59	59
Fixed Cost as % of Total Cost	21	23	24	24	24
Opportunity Cost as % of Total Cost	15	15	16	16	16
Purchased Feed/Cow ($)	764	711	776	830	813
Purchased Feed/Cow (Kg)	2956	2863	2901	2895	3016
Purchased Feed Cost/ HL Milk ($)	13.16	11.60	12.52	13.37	12.66
Kg. Purchased Feed/HL Milk	50.90	46.74	46.80	46.64	46.98
Purchased Feed Cost as % of Milk Sold (%)	25.5	21.7	23.2	24.3	22.6
Investment/Cow ($)	5449	5902	6545	6913	7292
Return on Investment (%)	9.8	11.5	9.8	8.1	9.3
Capital Turnover (Yrs)	1.6	1.6	1.7	1.7	1.7

SECTION B

PER FARM ANALYSIS

INCOME

Total Farm Receipts increased from an average of $221,624. in 1986 to $262,765. in 1990, for an overall increase of 19 percent over the five year period.

Income from milk and milk subsidies accounted for 86 percent of Total Farm Receipts in 1990 down marginally from 87 percent in 1986.

TABLE B-1: INCOME

Item	1986	1987	1988	1989	1990
Milk Sales	186722	199573	197026	204054	218151
Milk Subsidy	6649	7293	7058	7318	8203
Livestock Sales	15193	18181	19602	17327	19358
Crop Sales	1905	2196	2645	2399	2043
Miscellaneous	11786	13816	11889	11911	15010
TOTAL FARM RECEIPTS	221624	241059	238220	243008	262765

EXPENSES

Expenses on a per farm basis increased from an average of $166,261. in 1986 to $194,823. in 1990. This represents a change of some 17.2 percent in Cash Expenses over the five year period. Purchased dairy feed, the largest single cost item accounted for 26 percent of Cash Expenses in 1990.

TABLE B-2: EXPENSES

Item	1986	1987	1988	1989	1990
Dairy Feed	49169	44818	47323	51274	51133
Livestock Purchased	4150	3722	4122	4745	4065
Milk Hauling	6697	7191	7153	7594	8290
Crop Expenses	11160	12361	12986	12692	13060
Tractor & Machinery	11356	12356	11339	12252	13963
Truck & Auto	2728	2911	3890	3471	3816
Interest	17861	19046	20431	21300	24381
Labour	17019	18907	20299	20514	21578
Taxes & Insurance	4559	4673	4747	5049	5552
Milk Marketing Costs	11742	12545	9200	6675	9098
Dairy Supplies	4793	5000	5550	5992	7171
Vet & Drugs	2201	2499	2876	3315	3488
Breeding	2507	2521	2619	3326	3387
Building & Fence Repairs	4181	4149	5244	5645	5481
Utilities	4768	4663	4868	5156	5791
Custom Work }	-	4592	3710	5389	6429
Rentals & Leases } *	-	2548	2642	2353	2411
Miscellaneous }	11370	5894	5339	4919	5728
TOTAL CASH EXPENSES	166261	170898	174337	181663	194823

* Prior to 1987, custom work, as well as rentals & leases, were included in miscellaneous expense.

INCOME SUMMARY

In reviewing different levels of income, it was noted that income at all levels has shown much variation over the five year period 1986-1990. Net Cash Income ranged from a low of $55,363. in 1986 to a high of $70,161 in 1987. Average Net Cash Income for the period was $63,738. Net Farm Income ranged from $34,892. in 1989 to $43,325. in 1987. The average Net Farm Income was $38,532.

Labour and Management Income ranged from a low of $12,585. in 1989 to a high of $25,505. in 1987. The average over the five year period was $18,540.

TABLE B-3: INCOME SUMMARY

Item	1986	1987	1988	1989	1990
Total Farm Receipts	221624	241059	238220	243008	262765
Total Cash Expenses	166261	170898	174337	181663	194823
NET CASH INCOME	55363	70161	63882	61344	67942
Plus: Inventory Change	3503	-1619	2094	1770	729
Less: Depreciation	23464	25217	27277	28223	28333
NET FARM INCOME	35403	43325	38699	34892	40339
Less: Value of Unpaid Family Labour	2493	2437	2556	3195	2456
Interest on Net Worth @ 10%	14604	15383	16988	19112	20735
LABOUR & MANAGEMENT INCOME	18306	25505	19156	12585	17148

SECTION C

PER COW ANALYSIS

INCOME

When figures are calculated on a per cow basis, Total Farm Receipts have increased by 21 percent over the five (5) year period - from $3,445. in 1986 to $4,177. in 1990.

TABLE C-1: INCOME PER COW

Item	1986	1987	1988	1989	1990
Milk Sales	2893	3164	3231	3304	3468
Milk Subsidy	103	116	116	118	130
Livestock Sales	236	288	322	281	308
Crop Sales	30	35	43	39	32
Miscellaneous	183	219	195	193	239
TOTAL FARM RECEIPTS	3445	3822	3907	3935	4177

EXPENSES

Over the five (5) year period, Cash Expenses have increased from $2,585. per cow in 1986 to $3,097. in 1990 - a change of $512. per cow or some 20 percent.

TABLE C-2: EXPENSES PER COW

Item	1986	1987	1988	1989	1990
Dairy Feed	764	711	776	830	813
Livestock Purchased	65	59	68	77	65
Milk Hauling	104	114	117	123	132
Crop Expenses	173	196	213	205	208
Tractor & Machinery	177	196	186	198	222
Truck & Auto	42	46	64	56	61
Interest	278	302	335	345	388
Labour	265	300	333	332	343
Taxes & Insurance	71	74	78	82	88
Milk Marketing Costs	183	199	151	108	145
Dairy Supplies	75	79	91	97	114
Vet & Drugs	34	40	47	54	55
Breeding	39	40	43	54	54
Building & Fence Repairs	65	74	86	91	87
Utilities	74	74	80	93	92
Custom Work }	-	73	61	87	102
Rentals & Leases } *	-	40	43	38	38
Miscellaneous }	177	93	88	80	91
TOTAL CASH EXPENSES	2585	2710	2860	2941	3097

* Prior to 1987, custom work and rentals & leases were included with miscellaneous expenses.

INCOME SUMMARY

Income at all levels has veen varied over the five year period 1986-1990. Net Cash Income ranged from a low of $861. per cow to a high of $1,113. The range for Net Farm Income was from $550. to $687. per cow and for Labour and Management Income was from $204. to $404. per cow.

The average Net Cash, Net Farm, and Labour and Management Incomes per cow for the period were $1,019., $616., and $296. respectively.

TABLE C-3: INCOME SUMMARY PER COW

Item	1986	1987	1988	1989	1990
Total Farm Receipts	3445	3822	3907	3935	4177
Total Cash Expenses	2585	2710	2860	2941	3097
NET CASH INCOME	861	1113	1048	994	1080
Plus: Inventory Change	54	-26	34	29	12
Less: Depreciation	365	400	447	457	450
NET FARM INCOME	550	687	635	565	641
Less: Value of Unpaid Family Labour	39	39	42	52	39
Interest on Net Worth @ 10%	227	244	279	309	330
LABOUR & MANAGEMENT INCOME	285	404	314	204	273

SECTION D

PER 100 LITRES ANALYSIS

INCOME

Analysis of Total Farm Receipts on a per hectolitre of milk sold basis indicates that Farm Receipts have increased by $5.73 per hectolitre over the period. This translates to a change of 9.7 percent.

TABLE D-1: INCOME PER HECTOLITRE

Item	1986	1987	1988	1989	1990
Milk Sales	49.81	51.66	52.13	53.23	54.02
Milk Subsidy	1.78	1.89	1.87	1.91	2.03
Livestock Sales	4.07	4.71	5.19	4.52	4.79
Crop Sales	0.51	0.57	0.70	0.63	0.51
Miscellaneous	3.16	3.58	3.15	3.11	3.72
TOTAL FARM RECEIPTS	59.33	62.39	63.02	63.39	65.06

EXPENSES

Cash Expenses increased by $3.73 on a per hectolitre of milk sold basis over the five (5) year period. In percentage terms, this represents a change of approximately 8.4 percent.

TABLE D-2: EXPENSES PER HECTOLITRE

Item	1986	1987	1988	1989	1990
Dairy Feed	13.16	11.60	12.52	13.37	12.66
Livestock Purchased	1.11	0.96	1.09	1.24	1.01
Milk Hauling	1.79	1.86	1.89	1.98	2.05
Crop Expenses	2.99	3.20	3.44	3.31	3.23
Tractor & Machinery	3.04	3.20	3.00	3.20	3.46
Truck & Auto	0.73	0.75	1.03	0.91	0.94
Interest	4.78	4.93	5.41	5.56	6.04
Labour	4.56	4.89	5.37	5.35	5.34
Taxes & Insurance	1.22	1.21	1.26	1.32	1.37
Milk Marketing Costs	3.14	3.25	2.43	1.74	2.25
Dairy Supplies	1.28	1.29	1.47	1.56	1.78
Vet & Drugs	0.59	0.65	0.76	0.86	0.86
Breeding	0.67	0.65	0.69	0.87	0.84
Building & Fence Repairs	1.12	1.20	1.39	1.47	1.36
Utilities	1.28	1.21	1.29	1.34	1.43
Custom Work }	-	1.19	0.98	1.41	1.59
Rentals & Leases } *	-	0.66	0.70	0.61	0.60
Miscellaneous }	3.04	1.53	1.41	1.28	1.42
TOTAL CASH EXPENSES	44.51	44.23	46.12	47.39	48.24

* Prior to 1987 custom work and rentals & leases were included with miscellaneous expenses.

INCOME SUMMARY

Like the per cow and totals basis, incomes have varied over the 1986-1990 period on a per hectolitre basis.

Average Net Cash Income over the period on a per hectolitre basis was $16.54, average Net Farm Income was $10.00, and average Labour and Management Income was $4.82.

TABLE D-3: INCOME SUMMARY PER HECTOLITRE

Item	1986	1987	1988	1989	1990
Total Farm Receipts	59.33	62.39	63.02	63.39	65.06
Total Cash Expenses	44.51	44.23	46.12	47.39	48.24
NET CASH INCOME	14.82	18.16	16.90	16.00	16.82
Plus: Inventory Change	0.94	-0.42	0.55	0.46	0.18
Less: Depreciation	6.28	6.53	7.22	7.36	7.02
NET FARM INCOME	9.48	11.21	10.24	9.10	9.99
Less: Value of Unpaid Family Labour	0.67	0.63	0.68	0.84	0.61
Interest on Net Worth @ 10%	3.91	3.98	4.49	4.98	5.14
LABOUR & MANAGEMENT INCOME	4.90	6.60	5.07	3.28	4.25